

**CLAIMS**

1. A transmitter of a wireless microphone comprising:
  - an infrared interface;
  - a control portion;
  - a storage portion; and
  - a function control portion that controls a function of the wireless microphone;wherein the transmitter has one of or both of an information transmission function and an information reception function;
  - the information transmission function is to transmit, through the infrared interface, information regarding the wireless microphone which is stored in the storage portion; and
  - the information reception function is to receive the information regarding the wireless microphone through the infrared interface and to control the function control portion by the control portion according to the information regarding the wireless microphone to thereby control the function of the wireless microphone.
  
2. A receiver for a wireless microphone comprising:
  - an infrared interface;wherein the receiver has one of or both of an information transmission function and an information reception function;
  - the information transmission function is to transmit, through the infrared interface, information regarding the wireless microphone; and
  - the information reception function is to receive, through the infrared interface, the information regarding the wireless microphone.

3. A portable information communication device comprising:
  - an infrared interface; and
  - a storage portion;wherein the portable information communication device has one of or both of an information transmission function and an information reception function;  
the information transmission function is to transmit, through the infrared interface, information regarding the wireless microphone which is stored in the storage portion; and  
the information reception function is to receive, through the infrared interface, the information regarding the wireless microphone and to store the information in the storage portion.

4. A wireless microphone communication system comprising:
  - an infrared signal transmitting device; and
  - an infrared signal receiving device;wherein the infrared signal transmitting device is a receiver for a wireless microphone according to claim 2 that has at least an information transmission function, or a portable information communication device according to claim 3 that has at least the information transmission function;  
wherein the infrared signal receiving device is a transmitter of the wireless microphone according to claim 1 that has at least an information reception function, or a portable information communication device according to claim 3 that has at least the information reception function;  
wherein the infrared signal transmitting device is configured to transmit, using the information transmission function, information regarding the wireless microphone through the infrared interface;

and wherein the infrared signal receiving device is configured to receive, using the information reception function, the information regarding the wireless microphone that is transmitted from the infrared signal transmitting device, through the infrared interface.

5. The wireless microphone communication system according to claim 4, wherein the information regarding the wireless microphone is command information, and the command information is to command the transmitter of the wireless microphone to control a function of the wireless microphone.
6. The wireless microphone communication system according to claim 5, wherein the command information is information regarding an amplitude frequency characteristic of a sound signal, and the command information is to command the transmitter of the wireless microphone to control the amplitude frequency characteristic of the sound signal.
7. The wireless microphone communication system according to claim 5, wherein the command information is information regarding a gain of a sound signal, and the command information is to command the transmitter of the wireless microphone to control a gain given to the sound signal.
8. The wireless microphone communication system according to claim 5, wherein the command information is information regarding a frequency of a carrier wave, and the command information is to command the transmitter of the wireless microphone to control the frequency of the carrier wave.
9. The wireless microphone communication system according to claim 5, wherein the

command information is information regarding an output level of a carrier wave, and the command information is to command the transmitter of the wireless microphone to control the output level of the carrier wave.

10. The wireless microphone communication system according to claim 5, wherein the command information is information regarding whether or not to permit a setting condition of the transmitter to be changed, and the command information is to command the transmitter of the wireless microphone to enable or disable an operation portion of the transmitter of the wireless microphone to change the setting condition.

11. The wireless microphone communication system according to claim 5, wherein the command information is information regarding deviation, and the command information is to command the transmitter of the wireless microphone to control the deviation.

12. The wireless microphone communication system according to claim 5, wherein the command information is information regarding a pilot tone, and the command information is to command the transmitter of the wireless microphone to start or stop transmission of the pilot tone.

13. The wireless microphone communication system according to claim 5, wherein the command information is information regarding a display, and the command information is to command the transmitter of the wireless microphone to cause the display into an operating state or a non-operating state.

14. The wireless microphone communication system according to claim 5, wherein the

command information is information regarding a compander, and the command information is to command the transmitter of the wireless microphone to control a characteristic of the compander.

15. The wireless microphone communication system according to claim 5, wherein the command information is information regarding a mute function, and the command information is to command the transmitter of the wireless microphone to cause the mute function into an operating state or a non-operating state.

16. The wireless microphone communication system according to claim 4, wherein the information regarding the wireless microphone is attribute information, and the attribute information is to inform the infrared signal receiving device of attribute of the transmitter of the wireless microphone.

17. The wireless microphone communication system according to claim 16, wherein the attribute information is information regarding a type of a battery used in the transmitter of the wireless microphone.

18. The wireless microphone communication system according to claim 16, wherein the attribute information is information regarding a number or a name assigned to the transmitter of the wireless microphone.

19. A wireless microphone communication system comprising:  
a first infrared signal transmitting and receiving device; and  
a second infrared signal transmitting and receiving device;

wherein the first infrared signal transmitting and receiving device is a receiver for a wireless microphone according to claim 2 that has an information transmission function and an information reception function, or a portable information communication device according to claim 3 that has the information transmission function and the information reception function;

wherein the second infrared signal transmitting and receiving device is a transmitter of the wireless microphone according to claim 1 that has the information transmission function and the information reception function, or a portable information communication device according to claim 3 that has the information transmission function and the information reception function;

wherein the first infrared signal transmitting and receiving device is configured to transmit, using the information transmission function, reply request information regarding the wireless microphone through the infrared interface;

wherein the second infrared signal transmitting and receiving device is configured to receive, using the information reception function, a reply request signal that is transmitted from the first infrared signal transmitting and receiving device, through the infrared interface, and to transmit, using the information transmission function, reply information through the infrared interface in response to a request of the reply request signal; and

and wherein the first infrared signal transmitting and receiving device is configured to, using the information reception function, receive the reply information transmitted from the second infrared signal transmitting and receiving device through the infrared interface.

20. The wireless microphone communication system according to claim 19, wherein the reply request information is to request the transmitter of the wireless microphone to inform a setting condition of the transmitter;

and wherein the reply information is information regarding the setting condition of the transmitter of the wireless microphone.

21. A transmitter of a wireless microphone comprising:  
an infrared interface;  
a control portion; and  
a function control portion that controls a function of the wireless microphone;  
wherein the control portion is configured to control the function control portion according to information sent through the infrared interface to thereby control the function of the wireless microphone.
22. A receiver for a wireless microphone comprising:  
an infrared interface;  
wherein the receiver is configured to transmit, through the infrared interface, information in a form of an infrared signal to control a function of a transmitter of the wireless microphone.
23. A portable information communication device comprising:  
an infrared interface;  
wherein the portable information communication device is configured to transmit, through the infrared interface, information in a form of an infrared signal to control a function of a transmitter of the wireless microphone.
24. A wireless microphone communication system comprising:  
an infrared signal transmitting device; and

an infrared signal receiving device;  
wherein the infrared signal transmitting device is a receiver for a wireless microphone according to claim 22, or a portable information communication device according to claim 23;

and wherein the infrared signal receiving device is a transmitter of the wireless microphone according to claim 21.

25. The wireless microphone communication system according to claim 24, wherein the information in the form of the infrared signal is command information; and  
wherein the transmitter of the wireless microphone is configured to control a function of the wireless microphone according to the command information, upon receiving the command information.